

**What is claimed is:**

1. A scheduler for a machine comprising:  
a selector to select a traverser and to select policies from a library based on a model of the machine; and  
the traverser that is selected by the selector to look for a preferred itinerary.
2. The scheduler of claim 1, wherein the traverser includes:  
a first module to choose an itinerary;  
a second module to calculate a combined weight; and  
logic to repeatedly operate the first and second modules to choose additional itineraries from the group of itineraries and calculate their combined weight until an end condition is reached.
3. The scheduler of claim 2, further comprising a third module to choose after the end condition is reached an itinerary that has a combined weight calculated by the second module that is greater than a combined weight of any other itinerary calculated by the second module.
4. The scheduler of claim 2, wherein:  
the first module chooses an itinerary from a group of itineraries, the group of itineraries being one of (i) a sub-set of the itineraries in a list of valid itineraries and (ii) all of the itineraries in the list of valid itineraries; and  
the second module includes (i) an itinerary validator to compute an itinerary weight for the chosen itinerary for each of the policies and (ii) a combiner to combine the computed itinerary weight for each of the policies into a combined weight for the chosen itinerary.
5. The scheduler of claim 2, wherein the end condition includes at least one of when a calculated combined weight for an itinerary exceeds a predetermined threshold, when a predetermined time has elapsed, when a combined weight for each

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of a predetermined number of itineraries has been calculated, and when a combined weight for each itinerary in the group of itineraries has been calculated.

6. A method to schedule for a machine comprising steps of:  
 selecting policies from a library based on a model of the machine;  
 selecting a traverser; and  
 traversing one of a model of the machine and a list of valid itineraries  
 to look for a preferred itinerary.

7. The method of claim 6, wherein the step of traversing includes steps of:  
 choosing an itinerary;  
 calculating a combined weight; and  
 repeating the steps of choosing and calculating until an end condition is  
 reached.

8. The method of claim 7, further comprising a step of choosing after the  
 end condition is reached an itinerary that has a combined weight calculated by the  
 second module that is greater than a combined weight of any other itinerary calculated  
 by the second module.

9. The method of claim 7, wherein:  
 the step of choosing chooses an itinerary from a group of itineraries, the  
 group of itineraries being one of (i) a sub-set of the itineraries in a list of valid  
 itineraries and (ii) all of the itineraries in the list of valid itineraries; and  
 the step of calculating includes (i) computing an itinerary weight for the  
 chosen itinerary for each of the policies and (ii) combining the computed itinerary  
 weight for each of the policies into a combined weight for the chosen itinerary.

10. The method of claim 7, wherein the end condition includes at least one  
 of when a calculated combined weight for an itinerary exceeds a predetermined  
 threshold, when a predetermined time has elapsed, when a combined weight for each

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of a predetermined number of itineraries has been calculated, and when a combined weight for each itinerary in the group of itineraries has been calculated.

11. A computer readable media having modules stored thereon to control a processor, the modules comprising:

a module to select policies from a library based on a model of the machine;

a module to select a traverser; and

the traverser to traverse one of a model of the machine and a list of valid itineraries to look for a preferred itinerary.

12. The media of claim 11, wherein the traverser includes:

a first sub-module to choose an itinerary;

a second sub-module to calculate a combined weight; and

a repeat module to repeatedly operate the first and second sub-modules until an end condition is reached.

13. The media of claim 12, further comprising a module to choose after the end condition is reached an itinerary that has a combined weight calculated by the second module that is greater than a combined weight of any other itinerary calculated by the second module.

14. The media of claim 12, wherein:

the first sub-module chooses an itinerary from a group of itineraries, the group of itineraries being one of (i) a sub-set of the itineraries in a list of valid itineraries and (ii) all of the itineraries in the list of valid itineraries; and

the second sub-module includes (i) logic to compute an itinerary weight for the chosen itinerary for each of the policies and (ii) logic to combine the computed itinerary weight for each of the policies into a combined weight for the chosen itinerary.

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15. The media of claim 12, wherein the end condition includes at least one of when a calculated combined weight for an itinerary exceeds a predetermined threshold, when a predetermined time has elapsed, when a combined weight for each of a predetermined number of itineraries has been calculated, and when a combined weight for each itinerary in the group of itineraries has been calculated.

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